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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/736,424	12/15/2003	John Andrew Guckenberger	YOR920030502US1	3975

7590 10/06/2009
Thu A. Dang
Intellectual Property Law Dept.
IBM Corporation
P.O. Box 218
Yorktown Heights, NY 10598

EXAMINER

SOHN, SEUNG C

ART UNIT	PAPER NUMBER
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2878

MAIL DATE	DELIVERY MODE
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10/06/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/736,424	Applicant(s) GUCKENBERGER ET AL.	
	Examiner SEUNG C. SOHN	Art Unit 2878	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 13 July 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) 15-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 December 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

1. Applicant's election without traverse of Group I (Claims 1-14) in the reply filed on July 13, 2009 is acknowledged.
2. Claims 15-30 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected Invention II, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on July 13, 2009.

Specification

3. The abstract of the disclosure is objected to because the abstract is too long. Correction is required. See MPEP § 608.01(b).
4. Applicant is reminded of the proper content of an abstract of the disclosure.

A patent abstract is a concise statement of the technical disclosure of the patent and should include that which is new in the art to which the invention pertains. If the patent is of a basic nature, the entire technical disclosure may be new in the art, and the abstract should be directed to the entire disclosure. If the patent is in the nature of an improvement in an old apparatus, process, product, or composition, the abstract should include the technical disclosure of the improvement. In certain patents, particularly those for compounds and compositions, wherein the process for making and/or the use thereof are not obvious, the abstract should set forth a process for making and/or use thereof. If the new technical disclosure involves modifications or alternatives, the abstract should mention by way of example the preferred modification or alternative.

The abstract should not refer to purported merits or speculative applications of the invention and should not compare the invention with the prior art.

Where applicable, the abstract should include the following:

- (1) if a machine or apparatus, its organization and operation;
- (2) if an article, its method of making;
- (3) if a chemical compound, its identity and use;

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- (4) if a mixture, its ingredients;
- (5) if a process, the steps.

Extensive mechanical and design details of apparatus should not be given.

Drawings

5. Figures 1-2 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. *Claims 1-14 are rejected under 35 U.S.C. 102(b) as being anticipated by Lau et al. (Patent No. US 6,624,405 B1).*

Regarding claim 1, Lau et al. discloses a transimpedance amplifier, comprising:
a substrate; an amplifier circuit formed on said substrate; a photodetector pad for

connection to an external photodetector; and an auxiliary photodetector formed on said substrate adjacent to said amplifier circuit.

Regarding claim 2, Lau et al. discloses that said auxiliary photodetector does not significantly affect high speed performance of said transimpedance amplifier.

Regarding claim 3, Lau et al. discloses that said substrate comprises at least one of silicon, silicon-on-insulator, gallium arsenide, indium gallium arsenide, and indium phosphide.

Regarding claim 4, Lau et al. discloses that said amplifier circuit comprises at least one of metal oxide semiconductor, metal semiconductor, bipolar junction transistor, and heterojunction bipolar transistor.

Regarding claim 5, Lau et al. discloses that said auxiliary photodetector comprises one of a P-N photodiode, a P-I-N photodiode, a metal-semiconductor-metal photodetector and an avalanche photodetector.

Regarding claim 6, Lau et al. discloses that said auxiliary photodetector comprises a structure similar to that of a standard electro-static discharge diode.

Regarding claim 7, Lau et al. discloses that said auxiliary photodetector is provided at an input of the transimpedance amplifier in parallel with attachment points to the external photodetector.

Regarding claim 8, Lau et al. discloses that said auxiliary photodetector is provided to facilitate contact-less probing at input points of the transimpedance amplifier to test the transimpedance amplifier at wafer level.

Regarding claim 9, Lau et al. discloses that said auxiliary photodetector is optically excited to test the transimpedance amplifier at wafer level.

Regarding claim 10, Lau et al. discloses that said auxiliary photodetector is excited using short wavelength light.

Regarding claim 11, Lau et al. discloses that said auxiliary photodetector is excited by illumination, and the transimpedance amplifier is tested by detecting an output of the transimpedance amplifier.

Regarding claim 12, Lau et al. discloses that said output is detected by probing a supply voltage and detecting switching currents passing through a bias tee using a spectrum analyzer.

Regarding claim 13, Lau et al. discloses that said output is detected using a high gain antenna and a sensitive narrow band receiver.

Regarding claim 14, Lau et al. discloses that said output is detected using a high speed electrical probe by either direct contact or capacitive proximity coupling.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to SEUNG C. SOHN whose telephone number is (571)272-4123. The examiner can normally be reached on Mon-Thur, 7:30 AM -6 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GEORGIA Y. EPPS can be reached on 571-272-2328. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/SEUNG C SOHN/

Primary Examiner, Art Unit 2878